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TWO

REMARKABLE LECTURES

DELIVERED IN BOSTON,

BY DR. C. KNOWLTON,

ON THE DAY OF

HIS LEAVING THE JAIL AT EAST CAMBRIDGE,

MARCH 31, 1833,

WHERE HE HAD BEEN IMPRISONED,

FOR PUBLISHING A BOOK.

BOSTON:
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LECTURE I.

LADIES AND GENTLEMEN,

Were I to trace the causes of my being now here, I should soon arrive at that hydra monster which, in my opinion, has been productive of more human misery than any other one thing—not *under heaven* do I say, as astronomy has swept that bible-cob-web from over our heads—but upon earth. I mean superstition.

Superstition, O thou graceless offspring of ignorance and knavery! what of evil hast thou not done?

The life's blood of how many millions hast thou caused to flow upon the field of battle? How many weeping widows, destitute orphans, and disconsolate lovers hast thou not made? The thousands thou hast consigned to the dungeon, the scaffold, the rack, and the blazing faggot, who can tell? The money, time, and thought, devoted to thee, what good might they not do in a better cause?

The number of thy lunatics, and of thy suicides, O! how great; and how intolerable the mental misery? Indeed, how few have wholly escaped thy dark and dire forebodings? Who can enumerate the death-beds thou hast made most awfully wretched? Indeed, if pulpit stories were true, thy fiendish influence is such, that even a Voltaire and a Paine could not die in peace.

The peace and friendship of how many domestic and social circles hast thou not destroyed? How many children of the laboring poor have cried for bread which thou hast squandered upon those who toil not, neither do they spin?

A cloak and a protection to how many knaves hast thou not been? As to low, selfish, time-serving hypocrites, thou hast absolutely been the occasion of them all. Thou art a kind of hobby-horse, upon which the crafty, and even the numskull have jumpt—yes, *jumpt*, and rode triumphant into public favor and patronage, while the more honest, and the more enlightened reasoner has been left to trudge behind.

Thou hast caused the bosom of many a relative to heave with sorrow, because their dear friend, being *instantly* killed, had no

obstructed and opposed. Many of their worthy votaries thou hast slighted, slandered, obscured, and perhaps reduced to want.

And among all thy evil doings, as if the very devil were in thee —as in fact he is, and constitutes a part of thee—thou hast imprisoned a citizen of this free country, *ostensibly*, for diffusing scientific knowledge of practical utility; but, *really*, for giving thee a small pill in connection with it, slily wrapped up, which thou *canst not swallow*. I marvel not at thy uneasiness; but I have a very poor opinion of thy policy.*

Superstition is, indeed, a moral monster, at which all good women and men ought to aim a shot—not, as Paul says, "both in season, and *out* of season,"—but on all suitable occasions.

Because she begins to grow pale, and totter away in the form of unitarianism, universalism, &c. we ought not to lay down our weapons, fold up our arms, and sit down to enjoy our own serenity of mind. But, remembering what she has done, and of course may do, and, moved by the spirit of philanthropy towards even future generations, we ought to take courage from her present condition, and persevere unto the end.

Let us see her fairly down, and *dead*, before we leave her. For she is very tenacious of life, and, like the tortoise, will live with the multitude, at least nine days after philosophy has cut off her head. Or,

She is like the poor man's coat—rent by free inquiry in every part, but botched up again, botch upon botch. And until the people in the suburbs, yea, in the very outskirts of the community, are satisfied that the old coat never had any real ground-work, but is all a mere piece of patch-work, altogether out of fashion in the metropolis, theological botchers will continue to find employment.

"But," says the religionist, "though I must admit that superstition is as hideous a monster as you represent, still this is nothing against religion; and it is not fair to attribute to pure religion, those evils, which, strictly speaking, have arisen only from superstition." To whom I reply:—

If by pure religion you mean morality, and nothing more, you

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* The doctor had been most strangely and unjustly imprisoned in East Cambridge Jail, and even confined to hard labor, for publishing a book entitled "Fruits of Philosophy, or the Private Companion of Young Married People." It is not an obscene but a scientific work, and gives those practical instructions, which with very little trouble, subject the reproductive instinct to the will or wishes of individuals. Dr. K. is a very respectable practitioner, now settled in the town of Ashfield, Franklin Co. Mass.—PUBLISHER.

within the definition of superstition.

"Definition! definition!—I never trouble my brain with any of your scholastic subtleties. You free inquirers reason so much by the square and compass, and are so particular and exact about the meaning of words, I am out of all patience with you. However, I will hear how you define superstition."

Well, superstition is a belief in that, of which our experience gives us no knowledge; and which cannot stand the test of reason and free inquiry. To say it consists in certain creeds or doctrines, is to say the same thing, for creeds or doctrines are but opinions or beliefs *expressed*.

"Oh, indeed, I have no kind of objection to this definition. It is very concise, very proper, and I see at once that I have no superstition about me. For though I believe in some things which never act upon our senses, and, of course, our experience gives us no knowledge of them; still, what I believe, will stand the test of reason and free inquiry."

Very well. Let it go at that. Now do be consistent—do prove your sincerity and the real strength and soundness of your convictions. Let us see no uneasiness while such inquiry is being made. And if a free inquirer want a school-house, a hall, or a meeting house, to lecture in, let him have it. Why should you refuse? what can you fear?

"——Fear——hem——fear, why——I——fear he would lead weak minds astray."

Lead weak minds astray, gracious heaven! Do you lay claims to common sense, and yet not have sense to know, that it is *not* a property of error to find the mind right, and to set it wrong? so far from it, it is the reverse, exactly the reverse—"it is the property of truth to find the mind wrong, and to set it right."

Whoever heard of the mind being right in relation to a physiological, geological, astronomical, or any other subject, (theological excepted,) in which the exercise of reason is required, and then set wrong by feeble error—much less by free inquiry? There is something in truth, so easy, so simple, so *harmonious*, that when one is fairly in possession of it, all the error from the pulpits of hell cannot shake it from him.

Free inquiry strengthens the mind, and weak ones, of all others, stand the most in need of it.

No, my dear Sir, you are not afraid that free inquiry will lead to error. It would be a libel on your understanding for me to say it. You know it is the road to truth, and for this very reason

—you probably thought they were truths which cannot be shaken; but when they are about to be put to the test—when free inquiry is proposed, you find you were mistaken, you find you dread it.

Yes, my friends, every effort to hinder and obstruct free inquiry, is a downright acknowledgement in favor of the sect, for actions speak *truer* than words. And I propose, that hereafter, all notices of such efforts, in the papers, be headed: *An* ACKNOWLEDGEMENT *in favor of the free inquirers.*

I intend this day to attack—and perhaps I shall *rend*—the very vitals of superstition, by explaining the phenomena of thought upon the principle of *Materialism*, and by so doing, remove that which has most led men to believe in spiritualities: which belief is, indeed, about as essential to the continuance of superstition, as the heart is to animal life.

In preparing for this purpose, I have not had the assistance of books; I am not accustomed to speaking in public; I have *this* day left a confinement by which I have for a season been secluded from society. The subject I propose, has been so mystified by those who have started upon a wrong principle, that few have taken any interest in it; and, indeed, almost every one regards it as a dry subject, altogether beyond our comprehension. Yet, such is its *importance*, that, notwithstanding all these considerations, I hope to secure—not your prayerful, but your close and patient attention.

I think it was Seneca who said,—"It is hard digging for pure waters at first, but after you approach them, they will rise up and meet you.' Permit me to say you will find it so, in respect to my lectures.

Before I proceed to explain the phenomena of thought, it seems necessary and proper that I first give some idea of the organs immediately concerned; and very briefly state the grounds upon which materialism rests.

By *materialism*, I mean the doctrine that the thinking part of man is material—not immaterial or spiritual; and that when a man is said to die, he does indeed die, and of course, ceases to think or be conscious.

The organs immediately concerned in the phenomena of thought, or I may as well say, the *conscient phenomena*, are the brain and nerves. The brain occupies the great cavity of the head or cranium; and a prolongation of it extends downwards, the whole length of the spinal column, which prolongation is called the spinal marrow, or the pith of the back bone. The nerves are small white cords, of little strength, which proceed both from the brain and the spinal marrow.

There is a system of nerves within the body, which is connected with the brain and the spinal marrow, and which is unquestionably the seat of those, emotions or feelings which we sometimes experience in the region of the heart. But these nerves are chiefly concerned in the functions of digestion, and the circulation of the blood; and as I shall not treat of the passions, I say no more of them.

We have, then, nothing to do but with the brain, the spinal marrow, and the nerves which proceed from them. You must bear in mind, that none of these parts are insulated from each other. They are all connected together. The brain is the ocean, the spinal marrow is the river Mississippi, and the nerves are the smaller streams which empty—some of them directly into the ocean, but by far the greater part into the river Mississippi.

Most of the nerves branch out almost infinitely, so that you cannot prick the skin with the finest needle, without touching or disturbing some of these branches. This is proved by the fact that you feel the needle—by the fact that a sensation is excited.

Time will not permit me to enter particularly into all the arguments in favor of materialism. I must be content with briefly stating the more important ones, that may occur to me.

First. We have not the least knowledge of, and cannot even conceive of any being or agent—anything that can act or *do* anything—which is not material. You will understand that an immaterial being has no extension, no solidity, none of the properties of matter. It is, in truth, a *no*-thing. Language cannot express a greater absurdity, than an *immaterial being*. If a *thing* be said to be extended, or to have the property of extension, but not that of solidity, or other material properties, why, it is so much space, *empty space*, which is but another term for nothing.

Second. We have as much reason to believe—the same kind of facts, altogether, to prove,—that the brain is an organ of thought, as thatt he liver is an organ for the secretion of bile. And it is just as groundless, just as absurd, to say the brain is enabled to think by means of a sentient, a percipient or a thinking principle superadded—as to say that the liver is enabled to secrete bile by the agency of a bile-secreting principle superadded; or that the jaws are enabled to masticate our food, by means of a chewing principle superadded.

The power of thinking is quite as feeble at birth as any other organic power. It increases with our growth; it is the most perfect in manhood—and it becomes impaired as decrepid age

ceases at death, as we have to say, that any other vital action or function ceases—as we have to say the liver ceases to secrete bile.

Whatever disease, or whatever accident affects the lower and central part of the brain—the part from which the nerves proceed, affects the power to think—sometimes arrests all thought, all consciousness ; and whatever restores the brain to a sound condition again, restores this power. It is true that the power to think sometimes continues nearly unimpaired to the end of life. But in all these cases the disease is seated in some part besides the lower and central part of the brain.—So may the liver continue to secrete good bile to the very last.

In all cases of idiotism, the brain is found imperfect on dissection. And in all cases of insanity, on dissection are found structural diseases of the brain, or at least, traces of diseased action. The ability to acquire knowledge, and to perform intellectual labor, corresponds with the developement and perfection of the brain. This is true, not only as it respects man, but the whole animal kingdom.

Third. The phenomena of thought are *essentially* the same in kind, differing only in degree, in other animals, as in man ; yet no one contends for the superaddition of an immaterial or thinking principle in a horse, a dog, a fly, an oyster, &c. and all admit that when they die, they cease to be conscious. Now if an immaterial principle be necessary in one case, it is impossible to see why it is not in all. And if this principle be in its nature immortal, then horses, flies, oysters, &c. have immortal souls ! if man have any.

I will add, fourthly, that upon the hypothesis of an immaterial thinking principle, nothing like an *explanation* of the conscient phenomena has ever yet been given—no real advances in the philosophy of thought have been made—the subject has only been mystified. Metaphysicians have grovelled about in such a manner, and met with such insurmountable difficulties, as clearly shows that they were all in darkness and error.

I am now to explain the conscient phenomena, in doing which, much I shall say will be a mere statement of acknowledged facts ; and whatever is hypothetical, as some of our statements must be, since that which thinks is hidden from our view while it thinks, I hope will appear so reasonable in itself, or be so well supported by arguments, as to gain your assent.

But that none of your old notions may interfere, I tell you to begin with, that a man has no soul, no spirit, no mind, no memory, no imagination—nothing at all within his skull but just a

it would only be in our way, so away with the whole concern entirely; and I will engage not to substitute in its stead anything that is one tenth part so complicated. Truth is simple, plain, and easy; but error is complicated, mysterious, and difficult.

We will suppose, then, that there is an individual in whom the least consciousness has not as yet been excited—of what age, is immaterial to our present purpose. An impression is now made upon some one of his senses. This excites a peculiar action of the nerve or nerves of that sense, which action is instantly followed by an action of the lower and central part of the brain, which part I, for convenience, give a name, I call it the *sensorium*. This action of the nerve and the sensorium is what we call a sensation.

I have now made several statements which require some attention, after which I shall make more.

First. The impression, I say, excites a peculiar action of the *nerves*. How do I know? because when an impression is made upon any part which has no nerves, as the bones, the cartilages, and the nails, and in such a manner as not to affect other parts which have nerves, no sensation is excited. How do I know it is an *action?* Why, when a nerve is divided or compressed in any part of its course from the part upon which the impression is made, to the brain, no consciousness, no sensation is experienced. This proves that something passes along the nerve, and several facts which time will not permit me to detail, prove that this something is an action—an action of the nerve. It is indeed difficult to conceive what else it can be; and it is no more wonderful that an impression excites this action of the nerves, than thousands of other things in nature which no one questions—than it is that a slight scratch of the finger nail upon one end of a massy timber produces an atomic action throughout the whole timber; as is proved by your hearing the scratching when you apply your ear to any part of the timber. But I say it is a *peculiar* action. Why? wherefore? how do I know? This, indeed, is one of those simple, ultimate facts, which none can but believe, and yet, while it requires no support from argument, it admits of none. That the action of the part upon which the impression is made, as also that of the brain, which instantly follows, is peculiar, is as certain as that inanimate bodies do not feel, do not experience any sensation. I say it is peculiar, because I do not believe such action takes place in any part of nature except the nervous system. It is convenient to have a name for these peculiar actions of the

is nothing distinct from our sensations and thoughts. To think, to see, to hear, taste, smell, or feel, is to be conscious, and there is no consciousness when you do not either of these.

But although it is certain that a peculiar, a conscient action is excited in the organic extremity of a nerve, and in the brain, in case of sensation, as certain as it is that we experience a sensation; yet it is equally certain that this kind of action does not extend all the way from the part upon which the impression is made to the brain. If it did, when I prick or burn my finger, a feeling—a painful feeling, would be experienced all along my arm. Yet it is clear, as I have shown, that a something—an action, passes along the nerves in the arm. But as it is not a conscient action, it will not do to call it by this name; we must give it another. I choose to call it a *nervous* action. We see, then, that three things are necessary to the existence of a sensation, to wit, a conscient action of the organic extremity of a nerve, and also of the brain, and an intermediate nervous action. Yet a sensation is very properly defined a *conscient action of a nerve and the brain;* for although these three things are *necessary* to the existence of a sensation, still one of them, the nervous action, constitutes no part of a sensation.

Another of my statements which requires some attention before I make more, is in effect this, that in case of sensation, the conscient action of a nerve is instantly followed by a conscient action of the *lower* and *central* part of the brain, or, in one word, of the sensorium. On what grounds do I presume to state this?

That it is followed by some change in, or of, the thinking part of man is certain; otherwise there would be no sensation—otherwise we should not know an impression had been made, or is being made upon our senses—otherwise we could not say, I feel, I hear, &c. Now if you can possibly conceive that there can be a *change* without action—if you can possibly conceive that a change of any being or agent is not an action, do it. I cannot. I hold it certain, then, that an *action* of the thinking part of man *instantly* follows a conscient action of the organic extremity of a nerve in case of sensation, but not immediately, because a *nervous* action intermediates. That this thinking part of man is the brain, is proved by those facts and arguments which prove the truth of materialism, sufficient of which I have already advanced. But the facts which prove that the lower and central part of the brain is the seat of thought, I now proceed to state.

Very much of the upper and outer part of the brain may be diseased or taken away, without impairing what are called the intel-

pierce the upper and outer part of the brain in animals, and they give no signs of even so much as feeling; nor are any convulsions excited. But when the lower and central part of the brain is diseased, or compressed, or touched by an instrument, the intellectual faculties are deranged, enfeebled, or lost; pain is produced, spasms and convulsions of the limbs, &c. are caused.

Furthermore, all the nerves which proceed directly from the brain, as the nerve of the eye, of the ear, of the organ of smell, and of taste, proceed from this part of the brain; so, also, does the spinal marrow. Hence all the nerves of the body, either directly or indirectly, centre in this part. We are not, however, able to trace them, as distinct cords, to one point.

I have now substantiated the statements I have made; but instead of proceeding just now with my explanations of the conscient phenomena, I wish to digress a little.

The function or office of the *upper* and *outer* part of the brain is, in all probability, that of secreting, that is, making a forming out of the materials brought to it by the circulation, or nervous fluid, (or energy, as some call it,) which fluid, unquestionably, has much to do with our dispositions or propensities. And herein lies the chance to explain those facts for which Doctors Gall and Spurzheim have contended.

We all know that a man's propensities, as well as what *all* agree to call instincts, are very much under the influence of health and diet. The most stubborn may be humbled—not humble through fear of future consequences—his very disposition and nature, as it were, may, for the time being, be changed by abstinence. The cowardly and effeminate may be made courageous and daring by a meat diet, and especially for a short time, by ardent spirits. You have all heard the story of the king who was about to go to war, and to ascertain what kind of meat it would be best to keep his soldiers on, he imprisoned three men who were as nearly alike in all respects, as he could find. One he kept on mutton, one on pork, and the other on beef. After a time he goes to the first, Well, what do they give you to eat? Mutton sir,—to the second, pork, I live on pork,—to the third, well, what do you have to eat? Beef, God damn you!*

Now how is it that diet, &c. has such an influence upon one's character? It does not diminish nor increase his knowledge.—

* The point of this story depends on the manner the answers are given. The first man answers in a drawling submissive tone; the second speaks with

it. It is probably by influencing the secretion of the nervous fluid, in the existence of which, all physiologists believe; which fluid passes along the nerves to all the organs of the body which receive nerves. And although it does not really excite any distinct sensation of itself alone, yet it has almost every thing to do with our inward feelings; for some of which feelings we have no names. We have a feeling of health and activity, a feeling of lassitude, and of despondency; and in some states of the system, those inward feelings called the moral passions, as sorrow, joy, &c. are much more readily excited than in others—which states, I presume to be dependent upon the supply or deficiency of the nervous fluid.

Now if one part, or as Gall and Spurzheim would say, *organ*, of the brain, supply one bodily organ or system of organs, with nervous fluid and another part another organ, and so on, as is probably the case, we can see how one part of the brain, being unusually developed, may have an influence upon the individual's moral character.

I must believe in the unity of that which thinks. I cannot believe there are two or more separate parts or organs of the brain in which those changes occur which constitute our thoughts. If there were, why might we not have (as any one may satisfy himself he cannot) two or more thoughts at a time? and if two thoughts, why not two trains of thoughts? and if this were the case, then we should be double-thinking men; and while one was studying mathematics, the other might write poetry, for aught I can see.

I now proceed with my explanations. I have already gone so far as to define a sensation, *a conscient action of a nerve and the brain*. I now wish this were the proper place to state the fact, that a thought or idea (both the same thing) is a conscient action of the brain alone. But as truth will have it, I must now call your undivided attention to the subject of perception; in treating of which I may at first appear to have forgotten my definition of sensation. Yet, if you do but have patience, I will tell a straight story in the end, if I may but have my own way of telling it. My object is to talk in such a manner as to be understood. I care nothing about your rules of rhetoric, oratory, &c. I am not preaching—I am lecturing.

I am now about to lead you through the most difficult part of *my* system of metaphysics, and if you can but keep the track, you will do well. A part of the difficulty I have to contend with, is owing to our not using certain words at all times in precisely the

vous matter within the cranium; and in this sense I have used it all along in treating of sensation. But I have said that the nerves —some of them directly, and some indirectly, by way of the spinal marrow—concentrate in the lower and central part of the brain. It appears, then, that the sensorial extremities of the nerves are within the cranium; and, of course, constitute a part of the brain, in the sense I have used this word thus far. But I am now about to speak of the sensorial extremities of the nerves, not as parts of the brain, but as distinct organs. And I now tell you distinctly, that what I mean by the sensorium, does *not* include the sensorial extremities of the nerves, but it is that part with which the sensorial extremities of the nerves are connected, and which is the seat of thought. It is as the hub of a wheel, while the nerves are the spokes.

But you are not to suppose, that on dissecting the brain, we come to an organ, the outline of which is distinctly marked, and which all anatomists call the sensorium; nor are you to suppose that we can trace the nerves, as distinct cords, running any considerable distance into the substance of the brain. The most we can say is, that on dissection, the lower and central part of the brain is found to be a white medullary substance, unlike the other parts, but *gradually* lost in the other parts; that the nerves and spinal marrow take their rise from this medullary part; and that facts prove that thinking goes on, *somewhere* in this part. I do not pretend to know the precise situation nor size of the part which thinks; but whatever its size or situation may be, it is that which I call the sensorium.

Now recall to mind, that is, think again, that the sensorium is the hub, the nerves are the spokes, and those extremities of the nerves, which are connected with the sensorium, are the *sensorial* extremities, while those extremities which extend to the various organs of the body, are the *organic* extremities.

I will now give you the real, nice, metaphysical definition of sensation—the one I have already given, is a coarse, every-day concern. A sensation is a conscient action of the organic and sensorial extremities of a nerve. A *perception* is more than this. There may be a sensation without a perception, but not a perception without sensation; for a perception is a sensation, together with a conscient action of the sensorium, which action of the sensorium is *excited* by the sensation. To simply say, it immediately *follows*, or *accompanies* the sensation, will not do,—I will illustrate. My thinking part, my sensorium, is wholly and most in-

The clock strikes in the room where I am. Now the str
the clock, in all probability, excites a conscient action of
ganic and sensorial extremities of my auditory nerves, wh
sensation. This sensation is certainly followed by *some* co
action of my sensorium, and if it be one that is *excited*
striking of the clock, then I have a perception ; but if
thought relating to my game of chequers, there is no perc
but a sensation and a thought ; and, this being the case
some surprised, perhaps, on looking at the clock after
through with my game, to see that it has struck,—I say, I
notice it,—I did not perceive it.

Perceptions can be remembered ; for in perceptions, an
is excited in that part which thinks—which remembers
mere sensations, I hold, cannot be remembered. I belie
thousands of impressions are made upon our senses eve
for which we are not a whit the wiser—a man travelling th
way in a profound study, or, indeed, in no particular stu
the mere sight of thousands of insignificant and common
of which he can afterwards have no ideas, and could not
had seen them. And why ? Because no act of the thinki
was excited by the objects.

I know my views of perception can never be proved by
experiment, for the instant any one should endeavor to as
if he could have a mere sensation of any object, sound, flav
that instant, he would have a perception of it ; but I wil
some considerations, in support of them.

Every person may readily satisfy himself that he can ha
or more sensations, and even think, at the same identical i
He may see a man, hear him speak, and have ideas of the
the man is speaking of, at the same instant ; but he canno
about the man, and think of something else at the same i

It is agreed on all hands, that the thinking part of man,
ever is nature, or whatever name you may give it, can ha
one idea at a time, or, as some would say, can be in but on
at a time, or, as I would say, can act but one action, t
think but one thought at a time. Yet, is not seeing an act
which sees, is not hearing an act of that which hears, and
thinking an act of that which thinks, &c?

Now, as the mere sensations of seeing and hearing—
nothing of others—may exist, while the individual is thinkin
as but one conscient action can take place in the thinking
the same time, it follows, that the organs or seats of mere
tions are not the same as the organ or seat of thought.

to show.

I say, then, there may be sensations, without any act of that which thinks—nay, more, if an impression excite anything more than a sensation, it excites a perception, so that, strictly speaking, an action of the sensorium or thinking part, is never *excited*, in case of mere sensation. But we all know, that impressions do sometimes, perhaps for the most part—excite an action or change in the thinking part. Now, as in all these cases, something more than a sensation is excited, it is necessary to have some name for that—the whole of that—which is excited, hence the word *perception*.

Let us now stop, and consider how far we have got. The nerves are the spokes, the sensorium is the hub. A sensation is a conscient action of both ends of a spoke, and a perception is a conscient action of both ends of a spoke, and of the hub too. The sensorium is the organ of thought; and only one action or thought takes place in it at the same time.

These views have not been supported by all the arguments that might be advanced, but by such, as time and circumstances will permit. You will be better satisfied with them, as we get along; and let me here request you not to be bothering yourselves with the question, How can an action of a material organ be a thought? &c. I will make this matter perfectly easy, in my next lecture.

There are five species of sensation, and also, as a matter of course, of perception. That is, the spokes are of five different kinds of timber, so that an action is excited in some of them, only by light, in others, only by sound, in others, only by odors, and so on. These five species are named seeing, hearing, smelling, tasting and feeling. The nerves of feeling are distributed to such different and distant organs, and are excited by such different means, that we may very properly say there are several varieties of feeling, as a feeling of external bodies, of heat, cold, hunger, thirst, &c. Hunger and thirst being excited by internal causes, are to be classed with the organic passions, of which I shall not treat.

Now what is a thought? A thought, or idea, is a conscient action of the sensorium alone. I say *alone*, that is, it is not connected with a sensation as its cause, *at the time*. Every conscient action of the sensorium at some time or other, and perhaps a thousand times, has been caused by, and connected with an action of a nerve; but at such time or times, it constituted not a

conscient action of the sensorium occurs alone—when it is not excited by a sensation, or, if you rather, by an impression, it is what we call a thought or idea.

The grand question now arises, what causes it so to occur,—what gives rise to our ideas? I answer, the *sensorial tendencies*. Mark that, the sensorial tendencies give rise to all those actions of the sensorium which constitute our thoughts or ideas. These tendencies are the sum and substance of my machinery in explaining the intellectual phenomena. They remove all mystery. Several philosophers had gotten an indistinct glimpse of them, long ago, but not such as to give them "a local habitation and a name." I must begin a little way off, and come along in such a manner, that you will have a clear and correct view of the sensorial tendencies. After you have obtained such a view, I shall be able to despatch business more to your satisfaction.

The animal system is much influenced by *habit*, that is, having acted in any way, it the more readily acts in the same way again. Habit may be considered under the two divisions of moral habit, and organic habit. A man having done a crime, is the more likely to do another. This is an instance of moral habit. When a person commences playing upon a piano, it requires much attention and effort, that he move his fingers correctly; but after much playing, little or no attention is necessary. Here is an instance of organic habit. Now there is not, probably, in the whole animal kingdom, any animal, or any organ, that is more readily influenced by habit, than the sensorium of man. This is so much under the influence of habit (after the brain has acquired that degree of firmness which it does at the age of four or five years,) that when a conscient action is excited in it, perhaps only once, it acquires such a strong disposition or *tendency* to act after the same manner again,—to act the same action again—that it may thus act *without* the impression which first excited it. This tendency I call a sensorial tendency.

It is not a matter of speculation, but of certainty, that perceptions produce more or less lasting effects in the thinking part of man, which effects, afterwards, give rise to ideas. We all know that by seeing a cat, for instance, we are enabled afterwards to have an idea of a cat. Should there be any dispute about these effects, it must be about their nature, and the name most proper to give them; not about their reality. I say, then, the sensorial tendencies are realities—they do for a certainty exist, and give rise to ideas. If any one dislike the name, let him give us a better. As to their precise nature, I offer no other *opinion* than that

well say, *no organ*, leaving out the word material, for, though we have immaterial beings as a whole, if we believe some, yet as these beings have no parts, I suppose they have no organs. It would, however, chime well with the absurdities of immaterialism, to say, "Immaterial beings have no parts, to be sure, but still they have organs;" and then bring that scripture to prove it, which says, Dives died and was buried, and in hell he lifted up his *eyes!* &c.

The opinion that the sensorial tendencies are tendencies to action, of an organ, is supported by all the facts and arguments in favor of materialism—as well as the absolute impossibility of conceiving how any effects can be produced in an immaterial thing, which effects can give rise to ideas.

Though this be the only opinion I will offer, as to the precise nature of the sensorial tendencies, still I will remark that they remind me of a little green stick of wood, which is more easily bent after having been once bent, than before. The analogy I know is slight; and as these tendencies are the result of animal, organic action, we cannot expect to find anything out of the animal system, much analogous to them.

Perceptions, then, give rise to our sensorial tendencies, of which there are also five species, as well as of sensations and perceptions. Tendencies to optical ideas, tendencies to audial ideas, tendencies to ideas of flavors, odors, hardness, cold, &c.

Our optical ideas seem to be the most distinct of any, and it would almost seem they were the only ones thought of by philosophers, while treating of the intellectual phenomena.

To further illustrate what has been said of sensation, perception, and sensorial tendencies, I will suppose that I stand facing the Boston State House, with my eyes open;—rays of light are reflected by the house, which pass through the transparent coats and humors of my eye ball, and fall upon the retina, which is an expansion of the optic nerve. This much is an impression upon the sense of vision. These rays of light excite a conscient action of the organic and sensorial extremities of the optic nerve. This much is a mere sensation. And if the sensorial tendencies I already possess, are not so strong as to keep up an uninterrupted train of ideas foreign to the house, in despite of the impression which is being made; or, as some would say, if my mind is not wholly occupied with thoughts foreign to the house, the action excited by the rays of light would extend beyond the sensorial extremity of the optic nerve—it would extend into the sensorium, in which case I should have a perception of the house; and if

then I should *think* about the house. I should not merely perceive it, not merely observe it, but attend to it.

The action, excited by the rays of light, extending into the hub or sensorium, the sensorium becomes disposed, or acquires a tendency, to act this action again, and, consequently, after I get into the country, this action of the sensorium may recur without the action of the optic nerve, constituting an idea of Boston State House.

You now understand what I mean by sensorial tendencies, and how we acquire them. A little more discourse about them, and I leave this head.

Unquestionably, some brains are so well organized, as to acquire sensorial tendencies much more readily than others; but, generally speaking, the more impressions the more perceptions, and the more perceptions the more sensorial tendencies; for every new or different perception causes a new tendency of more or less strength.

The strength of tendencies is increased by repetition of action, whether the action be re-excited by the impression which first excited it, or whether the tendency itself give rise to it. Thus, having heard a stranger's name, you can fix it in your mind, as the unphilosophical expression is, by merely *thinking* it over; so, too, the school-boy, having read his lesson over so many times as barely to be able to recite it, may get it at his tongue's end, by merely thinking it over.

When I say, a tendency is strong, I mean it readily becomes operative; that is, gives rise to action or thought. Tendencies become weak by inaction. I shall account for this fact hereafter.

There are two kinds of relation between the sensorial tendencies. When I say, two or more tendencies are related, I mean nothing more than the simple, undeniable fact, that they are apt to become operative together, that is, to give rise to ideas in close succession.

We all know that when we have seen, even at distant times and places, objects that are related by similarity of look, or in any other obvious way, an idea of one of these objects is apt to be immediately followed by ideas of the others. This kind of relation, for want of a more classical name, I call *objective*.

Again, having seen dissimilar objects, heard dissimilar sounds, &c. *at the same time*, or even thought of these dissimilar things at the same time; whenever afterwards, we think of one of them, we are apt to think of the others. This kind of relation, I call *timal*. All language, whether spoken or written, unless hieroglyphics be

our sensorial tendencies. The word *man* is no more like the thing man, than mount Vesuvius is like a pocket handkerchief; but the spoken or written word *man*, instantly calls up the idea of the thing man, because the thing man has been seen or described *at the time*, when the word man has been spoken or seen—at the time, for instance, when our nurses pointed at the thing man, and said, "there is a man."

As I am now about to close this lecture, I will briefly recapitulate the principal points which I wish you to remember. 1st. A sensation is a conscient action of the organic and sensorial extremities of a nerve; of which we may have more than one at the same time. 2nd. A perception is the same, with the addition of a conscient action of the sensorium, which action of the sensorium is *excited* by the sensation, or, if you please, by the impression which excites the sensation. We can have but one perception at a time. 3rd. The sensorium, by action, acquires tendencies to act, which tendencies are of themselves sufficient to give rise to actions. 4th. An action of the sensorium *alone*, is a thought or idea. 5th. In no intellectual operation does any thing more take place than one sensorial action after another—not two or more at the same instant. 6th. That as certain ideas are apt to occur in close succession, or, as some would say, as one idea suggests another, we say the sensorial tendencies are related, of which relation there are at least two kinds, objective and timal.

In my next lecture, I shall consider the question, How can an action of the brain be a thought? I shall show what takes place in us when we are said to remember, judge, imagine, believe, &c. I shall touch upon volition, free agency, personal identity, conscience, seeing spectres or ghosts, &c.

LECTURE II.

LADIES AND GENTLEMEN,

In my former lecture I compared the lower and central part of the brain, which part I call the sensorium, to the hub of a wheel, and the nerves, which proceed from this hub to all parts of the body, to the spokes of a wheel. That extremity of a nerve which is connected with the sensorium, I called the sensorial extremity, and the other extremity which proceeds to, or is distributed to some organ of the body, I called the organic extremity. I showed that a sensation is a conscient action of the organic and sensorial extremities of a nerve; and that we can have two or more sensations, for instance, see and hear, at the same time. Yea, and even think or have ideas while we have sensations—which fact disproves the doctrine of an unextended soul. I showed that a perception is the same as a sensation, with the addition of a conscient action of the hub or sensorium; and that we can have but one perception at a time. That the sensorium is so much under the influence of habit, that by action it very readily acquires tendencies to act after the same manner again; which tendencies called sensorial tendencies are of themselves sufficient to give rise to actions. That a conscient action of the sensorium *alone* is a thought or idea. That in no intellectual operation does any thing more take place than one sensorial action after another. That as certain sensorial actions or ideas are apt to occur in close succession, or, as some would say, as ideas suggest each other, we say the sensorial tendencies are related, of which relation there are two kinds, *objective* and *timal*.

To clear away, and to have out of the way, all old rubbish, I told you distinctly, that a man has no soul, no mind, no spirit, no memory, no imagination—nothing at all in his head but just a brain and sensorial tendencies, and not even these latter until his brain has been put in exercise by impressions upon the senses.

I am now, first to attend to the question with which I suspect you have been foolishly bothering yourselves, for (my own stu-

of the brain be a thought?

My friends, I would ask how an action, change, or state, of anything else, can be a thought? how can anything—I care not by what name you call it—how can any thing be a thought? how can anything be what it is, or as it is? how can fire be hot, water wet, the rays of the sun light—how can a body passing from one place to another, be a motion of such body? A thought or idea is but another name for a peculiar action of the thinking part of man, the very nature of which action is to be what it is—is to be what we call a thought. That a conscient action of the brain is a thought, is just one of those simple, ultimate facts, or laws of nature, which requires no explanation and admits of none,—because there is nothing to explain—because the fact *is* simple. To explain any operation of nature is to point out hidden changes which take place between *known* changes. But where there are no intermediate and hidden changes, none of course, are to be pointed out—no explanation to be given.

It is certainly quite as easy to conceive how an action of an organ which we know to exist, can be a thought, as it is how an action or state of an unextended soul, of which we can have no conception, can be a thought. But the truth is, the difficulty of conceiving how anything can be a thought—if, indeed, you will say there is any difficulty about it—has nothing to do with the question, *what thinks?* Facts are to decide this question; and as I have before said, we have as much reason to believe, the same kind of facts altogether to prove, that the brain thinks, as we have that the liver secretes bile.

If time would permit, I would here take a wide range. I would not simply state, but labor to convince you, that matter is nothing more nor less than a combination of properties, as extension, solidity, &c. That to talk about the *essence* of matter is to talk about nothing—to utter nonsense. That matter unites with matter in three different modes, mechanical, chemical, and organic. That as chemical union gives rise to properties peculiar to itself, which we call chemical properties, so does organic union give rise to organic properties peculiar to itself. That as chemical union gives rise to the property of acidity, for instance, so does organic union give rise to the property of sensibility.

I would then go one step farther, and convince you, that after all, these properties which arise from combinations, whether chemical or organic, are in reality nothing—nothing but things of our own making. I would show you that all the reason we

changes. We say oil of vitriol, for instance, possesses the property of acidity, and why? because it changes vegetable blue colors to red; unites with, and neutralizes alkaline substances, produces a certain sensation in the mouth, &c. So too, we say the nervous system possesses the property of sensibility, because impressions upon the senses excite conscient actions in it.

But acidity is nothing distinct from oil of vitriol; indeed, it is nothing but the oil of vitriol *acting as it does*. If it did not act or do thus, it would not be oil of vitriol, and we should not say it possesses the property of acidity. So, too, sensibility is nothing distinct from the nervous system. It is a simple, ultimate fact, or law of nature, that when the nervous system is in the condition called sound, impressions upon the senses excite those actions or changes in it, which we call conscient; and for this only reason, we say it has a property of being thus excited, which property of our own making, as it were, we name sensibility. This is the correct view of the subject. But it is putting the cart before the oxen to say, as many do, that impressions excite conscient actions or sensations, because the nervous system is sensible, or possesses the property of sensibility.

You see I have explained sensation, perception, &c. without even mentioning the word sensibility. It is a piece of machinery which is convenient enough after it is rightly understood; but it in reality helps to *explain* nothing—it points out no hidden changes, nor does it excite any idea, except of the word's own sound and appearance. When I say *ox*, you have an idea of a four-legged animal, but when I say *sensibility*, what ideas have you besides the audial and optical ideas of the word itself—that is, an idea how it sounds when spoken, and an idea how it looks on paper?

But you will say there must be something different in the nervous system from what there is in other textures or organs, else why do impressions excite sensations in that, but not in these? Now what is this different something? The answer is very easy. It is a different organization. But to ask why impressions excite sensations in such organic texture as the nervous system, but in no other texture, is to ask another unphilosophical question. It is to question about another ultimate fact, or law of nature; and of course, the only, and the sufficient answer is, it is so, because it is so. When we arrive at ultimate facts, we come to the end of inquiry. We have not only discovered all we *can*, but all there *is*. A deity himself could not explain where there is nothing to be explained. He could but say, it is so, because it was

any of you would be a whit the wiser for it.

I think we can now pass along without being troubled with the question, How can an action of the nervous system be a sensation or a thought? But I wish to take some notice of the word *Life*, and perhaps the present is the most suitable place.

I am much inclined to the opinion that there was once a *first* man; but I will not discuss the question whether a first something else made him outright, at a job, and then dissected out one of his ribs, and made a woman of it! or whether he was the result of a long series of natural operations, such as none of us have seen concluded: though such a series may at this time be going on, and by improvements upon the ourang outang, or some other animal, may, in a few thousands or millions of years, be completed. I take man as he is; and I say what I do *know*, when I say that organization gives rise to organization; just as infectious matter gives rise to infectious matter, or as fire gives rise to fire. Now what we mean by organization, is, matter organically united, in the form of fluids (as the blood) or organs and systems of organs. And when it is so united, the compound or being suffers, and produces such changes, in a word, *does* such things, that we ascribe to it several organic properties, which we name sensibility, contractility, &c. As it propagates its species, we might say it has a generative property.

Now when any organic body or being possesses all the organic properties natural to it, it is said to be alive, or to possess life. There is no one thing for the word life to signify; and it is putting the effect for the cause, to say that life gives rise to organization. It is organization that gives rise to those properties, or those phenomena, which lead us to say a being has life. When from any cause an organic body undergoes such changes that it no longer exhibits these phenomena, it is said to be dead. This is the whole story.

I now proceed with the intellectual operations, and first, of *remembering*. The renowned Locke seemed to think that a man has something in his head which ought to be called memory, into which ideas are packed away, like mackerel in a barrel, to be again brought forward, as occasion may require, into the "mind's presence chamber," by the very cask which contains them. But he had good sense enough to laugh at his own notions, and to tell us that, after all, an idea stored away in the memory is just no idea at all. The fact is, Mr. Locke, as all other metaphysicians ever have been—was all in the dark, and with his utmost ingenu-

rise to all our ideas; and when they give rise to an optical idea of a man, (and the same of other visible things) we are said to remember how the man looks; if they give rise to an idea of his name, also, and perhaps of some place in which we have seen him, we are said to remember the man. In remembering an *event*, we have a *sense* of time, which has elapsed since the event; not an *idea* of time, for as time is not a thing that can make an impression upon our senses, and thereby excite an action of the sensorium, strictly speaking, we can have no idea of time; but several ideas occurring together constitute what may be called a *sense* of time. When a man remembers a past event, (and he never remembers any other) his sense of time is composed, as it were, of ideas that have been created—or rather the sensorial tendencies which give rise to them—by impressions made upon his senses *since* the time of the event. Had he instantly fell into a state of profound apoplexy, and remained so ten years, or ten thousand years, on coming to, and being asked when the event happened, his answer would be, *just now*.

If we must say, that remembering is something different from simple, every-day thinking, perhaps we cannot do better than to say, that to remember any thing, is to have *several* ideas relating to that thing. It is not a *memory*, however, that gives rise to these ideas, but sensorial tendencies.

Remembering is not an act of the will, for in the first place, there is no will, philosophically speaking; but if there were, you all know you cannot always remember things when you wish to. Nor can you always think, think of, or remember a man's name, for instance, when you *know* it. I mention this, to ask what it is to know a thing when you cannot think of it. It is to have sensorial tendencies to think of the thing, which tendencies do not become operative—do not give rise to actions or ideas on the occasion.

I very much suspect, that an inconsiderate immaterialist would attempt to refute my views, by telling us that an old man can remember the events of his youth, yet every particle of his youthly brain has been removed, a little at a time, by a process called absorption; and that another brain was as gradually formed in its stead, by a process called nutrition. And, how is it, he would exultingly ask, that the new brain comes to have the sensorial tendencies of the former one, seeing that the impressions which gave rise to these tendencies have never operated on the new brain? I will answer—I will even turn this matter to my own advantage.

system but the brain, and probably the whole matter of the system—except for the present the brain—is changed as often as once in seven years, or thereabouts. But large as the brain is, and as much blood as is sent to it—it being one fifth of all the blood—it is a remarkable fact, that no such vessels can be found within the skull. It is only from analogy, then, that we infer, that the matter of the brain is changed. Yet I admit it—I hope it is so. It enables me to account for our entirely forgetting many things, so that when another person attempts to remind us of them, we can have no idea about them; which fact I defy an immaterialist to account for, in any probable manner.

But how is it, that an old man is enabled to remember many of the events of his youth? It is because, that throughout his whole life, he has thought of these events more frequently than his brain has changed. When a former brain was but partly gone, its sensorial tendencies were only weakened. The stronger ones were still sufficient to give rise to action, and they did so. This action or repetition of action, renewed their strength, and thus the sensorial tendencies have been kept good, through all the changes the brain is supposed to have undergone.

Many of the weaker sensorial tendencies, however, not renewing their strength by action, were rendered so very weak by the gradual removal of the brain in which they were first created, that after a time it became utterly impossible for them to give rise to actions or thoughts, and so they were finally carried clear off—the impressions which first gave rise to them are completely forgotten, and the man is as *ignorant* as if these impressions had never been made.

After the brain becomes dry and stiff, as it often does from old age, hard drinking, &c., impressions produce such weak sensorial tendencies, that the events of yesterday cannot be remembered; yet the events of youth having been thought of frequently during a long life, such strong tendencies to think of them have been produced, that the infirm old man can think of events of his youth, but, as I have just said, not those of yesterday. I should be pleased to see how an immaterialist would attempt to account for this fact.

To *judge* is to think of all the facts relating to the thing judged of, *in an uninterrupted order*.

I say *all* the facts, that is, all you know—all you have sensorial tendencies sufficiently strong to give rise to ideas of. If you know *all* the facts which have any bearing on the subject or ques-

are qualified to judge correctly. Otherwise you may err. If you know a fact, that is, have tendencies to think of it, still if these tendencies be so weak as not to give rise to actions or ideas, when forming an opinion or judging, why, they are of no use to you—your opinion will be the same as if you were *perfectly* ignorant of the fact.

It is true, that when your opinion or judgment is asked relative to any question, you need not always think of every particular fact relating to the question, before you are prepared, and well prepared, to give your opinion; for you may have previously summed up these facts, as it were, some of them into one conclusion, some into another, and so on; so that when your opinion is asked, you have only to think of these conclusions, in a connected order. Or, perhaps you have previously not only formed a number of minor conclusions from the facts, but from these conclusions have come to the grand, final conclusion, so that you are ready to give your opinion as soon as asked.

You must take some of my statements on trust. I have not time to illustrate and prove all of them, and I will not labor to prove to you, that judging differs from common every-day thinking, only in thinking over the facts relating to a question, or minor conclusions drawn from them, in a *connected* order.

But I wish to call your attention to the *comparing* of ideas. It seems to have been the opinion of Locke and others, that judging consists in comparing one idea with another, and clearly distinguishing the difference between them.

But I say there is no such thing as comparing one idea with another—'tis all nonsense. All admit that we never have but one idea at a time; how, then, can we compare one idea with another? how can we compare that which is, with that which is not? or, in other words, how can we compare something with nothing? Moreover, the very act of comparing, would be an act of that which thinks—indeed, it would, itself, be an idea, so that when it were in being, there would be *no* idea, not even one, to be compared. I wonder what is the difference between two nothings.

The truth is, to have two ideas in immediate connection, is to be immediately sensible of a difference between them. Such is their very nature. When you have an idea of a horse, and an idea of a cat, no *third* act of the brain or thinking part, is necessary that you may be sensible of a difference between them, nor is there any third act for the words *being sensible*, to signify. To have two ideas, without being immediately sensible of a difference

part, is, in fact, to have but one idea twice. I say, then, there is no such thing as comparing ideas.

Philosophically speaking, there is no such thing in man as an *imagination*; but to imagine, is to substitute ideas of things which have acted upon our senses, for ideas of things which never did. And to substitute an idea of one thing for an idea of another thing, is but to have an idea of one thing in connection with an idea of the *name* of another thing.

For illustration, I have an idea of a black scaly body, two crooked legs with cloven feet, a long bearded tail, long open jaws, &c. and think of the word devil. I call it the devil—and doing this, is imagining how the devil looks. It is creating a devil in my own imagination.

We have no real idea of things that never made impressions upon our senses. What we call ideas of such things are not real but *substituted* ideas of them. To be sure, the ideas are real in themselves, but not real ideas of such things. A man who has seen Boston can have a real idea of Boston; but if he have not seen London, he has but a substituted idea of that city. Now bring him to Boston in his sleep, and when he awakes, he will know where he is; but carry him in his sleep to London, and when he awakes he will not know where he is. Much more needs be said under the head of imagining, but I must pass to the subject of belief.

To think over congruous or harmonizing thoughts is to believe. There is no particular act of the sensorium for the word *belief* to signify. But when a man has occur a train of congruous thoughts or ideas relating to any subject, his consciousness is such that he says, *I believe.* But if the facts or statements he thinks of—in other words, if his thoughts are contradictory or incongruous, his consciousness is, of course, different, and not such as leads him to say, *I believe.* I say his consciousness is, *of course*, different; for as I said in my first lecture, consciousness consists in, and is nothing but thoughts, perceptions, or sensations.

In some cases, the facts known and thought of, relating to a given subject or question, lean opposite ways so evenly, that is, contradict, counterbalance, or neutralize each other so completely, that there is no belief one way or the other. To be in such a state of information concerning a question, is to be what I call *opinion neuter.* In many cases, though the facts known to us lean opposite ways, yet more of them—more in weight if not in number—lean one way than the other, so that there is some de-

such a thing as *sensitive* belief. For instance, I perceive
before me. This perception is, in its very self and alone,
sitive belief, that a man is before me. I say no more of se
belief.

I find that all the language of intellectual philosophy, and
common use relating to mental operations, so called, is ba
it were on the principle that man is a free agent; and is
lated to keep up this erroneous doctrine. Hence it is very
cult for me to treat of the sensorial operations, so as not
misunderstood.

When I say a man thinks, believes, remembers, &c. I d
mean that he, as a free agent, does anything; but that his
rial tendencies give rise to thoughts, just as all other cause
rise to their effects.

When I advise a man to reflect on the conduct of his pa
what do I expect? Not, surely, that he, as a free agent, w
himself about it, but that I, myself, set him about it. I
my saying so to him, will set his thinking part a going that
and as his sensorial tendencies are related, when one thou
lating to his past conduct is caused to occur, others will

We talk about a man's changing his opinions. It is all
No man upon earth ever changed his opinions. If his op
have been really changed, new light alone has done it.
thing has created new sensorial tendencies, or changed the
tions between the old ones.

Volition. By this word is meant the power of performin
untary motions. I must treat of it very briefly, first requ
you to consider that the word *power* is not the name of any
distinct from a material substance, any more than strength
tinct from a bar of iron.

All voluntary motions are performed by the contraction o
untary muscles—which are fleshy bodies arising from some
and passing their slender cord, like ends beyond joints,
serted into other bones. Nerves proceed from the brain
directly or indirectly, through the medium of the spinal m
to these muscles. When any of these nerves are divided o
pressed in any part of their course, the muscles to which th
cannot be caused to contract by any desire or willing of th
vidual; hence the limb or other part, which is usually mov
the contractions of these muscles cannot now be moved.
and other facts prove that in our voluntary motions, som
passes from the brain to the voluntary muscles, and facts
I have not time to state, prove that this something is an *act*

of a nerve in case of sensation. Yet I give it the same name—I call it a *nervous* action.

Now you may talk as much about volition, desire, will, &c. as you please, yet by duly investigating the subject, we shall come to the following ultimate facts, where, of course, we must stop, for there is nothing beyond them—to wit; when certain conscient actions of the sensorium occur, nervous actions in the sensorial extremities of certain nervous tracks set in or commence, and shoot along down to the voluntary muscles, which muscles instantly contract. The three ultimate facts I have now mentioned, are the most important laws of volition.

If time would permit, I would show what takes place when those sensorial actions occur which *would* cause a man to go to Boston, for instance, were it not that others occur which cause him to go to Albany. I would show that when a man has two desires at the same time, speaking after the common way, it is the strongest that puts him in motion. But if the one be exactly as strong as the other, he is in a *quandary*, and remains where he is until some new idea comes up to turn the scale.

I would also show that many of our common motions are performed solely from what may be called habit, the thinking part having nothing to do with them, but to set the machinery a going which performs them. When a man is walking, very frequently that which thinks has nothing to do with putting one leg before the other, only when he alters his pace or changes his course. He may muse away upon some foreign subject, as uninterruptedly as if not walking—As the boy said, who accidentally whistled in school, "I did not whistle, *it* whistled."

Those who profess to believe there is something in a man's head for the word *will* to signify, would probably treat, in connection with volition, of a little theological thing called *free agency*. But as I know nothing of the gentleman, and have no belief in his existence, I shall not say much about him; and considering what has been said, I trust I need not. A knowledge of facts is sufficient to destroy all belief in free agency. But there is one short argument against it, which I defy the subtilties of theology to rebut, namely, there are no actions, changes, events, in a word, no *effects* without causes; and one effect as necessarily follows its cause, be it within the head or without, as another.

This is the argument. The inference is, that man, philosophically speaking, is no more a free agent than a time-piece. No at-

doctrine of necessity prevail, is to blow at it, and attempt to
people believe that, according to this view, it is absurd to pu
man for crime. Whether they believe what they say, I know
but if they do, they are indeed stupid. Punishment is no
ought not to be vindictive; it is designed to operate as a *ca*
prevent further crime; and this it is calculated to do, though
philosophically speaking, is no more a free agent than a time-
It does not follow from this, as some have sneeringly insin
that it would be proper to punish a time-piece. Though ma
a time-piece agree in one respect, that of not being free agent
they differ very essentially in others. One is a piece of me
cal machinery, the other an organic machine.

My friends, I claim the honor of being the first to solve the
tery of *Personal Identity*. The question, What is it that
tutes the same man, more especially the same mental, the
thinking man? is a question which philosophers have been
to answer in a manner at all satisfactory, though the mental
bestowed upon it has been immense. In theology, it has bee
sidered important as having a bearing on the doctrine of a future
and also of rewards and punishments in that state. Perhaps
is no doctrine more clearly set forth in the New Testamen
that of a resurrection of the body. Yet, inconsistent as it ma
pear, theologists, who pretend to believe the bible is the wo
God, are not willing to rest the doctrine of a future state on
resurrection. And I apprehend that one great reason why
are not, is, because they are ignorant of what constitutes the
person. They see, that if to be the same person, is to be co
ed of the *same matter*, organized in the same form, then the
rection of the same person is a doctrine not to be defended.
suppose a man die upon the field of battle, he is not buried
body becomes loam—then grass—then mutton, then man
this man dies, and the same changes go over again, and agai
that the same matter composes not one only, but several pers
the time they die. Now if the same matter be essential
same person, it is clear that *all* and the *same* persons who ex
this life, cannot exist in a future, if a future depend on a res
tion of the body.

In truth, however, the doctrine of resurrection is free of th
ticular difficulty or objection I have just noticed, for the pa
of matter which compose a man have nothing to do with his id
in any important sense of the term. All that is necessary to
stitute the same man, to all intents and purposes, is to hav
same looking body, organized out of *any* matter, possessi
same sensorial tendencies.

tal sameness of identity, or, as I choose to express it, constitutes the same man to himself—the same thinking man. I need not occupy fifty octavo pages to substantiate my views of personal identity, as others have done in setting forth and unsuccessfully defending theirs.

As sensorial tendencies give rise to all our thoughts, to satisfy yourselves of the truth of what I have said, you have but to reflect what would be the case if either two of you, say Timothy Trusty and Peter Grievous, were to exchange sensorial tendencies. Though there should be no change of outward form or look, and though each might look in a mirror, yet all creation could not make the Timothy Trusty man believe he is not Peter Grievous, and *vice versa*. The Timothy Trusty man would think of every place the Peter Grievous man had ever been in, of every thing he had ever done, would claim the Peter Grievous property, would believe his name to be Peter Grievous; in short, though he would own he looks like Timothy Trusty, yet it would be as impossible to make him believe he is not Peter Grievous, as it is to make any man believe he is not his neighbor.

We often speak of knowledge as something which a man has in his head. What is it? Nothing more nor less than his sensorial tendencies. If people will continue to use the word mind, and the philosopher be compelled to grant it some meaning, what must he say? Why, sensorial tendencies. As in astronomy, and some other branches of physics, attraction is every thing, so in the philosophy of thought, the sensorial tendencies are the whole machinery. And now let me show you that neither attraction nor sensorial tendencies are things conjectured or hypothetical. They are things of certainty. There is no conjecture about them. But should a man offer an opinion as to the *nature* of attraction,—should he say, for instance, that it is an effect or a manifestation of the electric fluid, he then offers an opinion, conjecture, or hypothesis, which may or may not be correct. But so long as he means by attraction only the fact or law of bodies, that bodies move so and so, under such and such circumstances, he is on sure ground—he has nothing to do with hypothesis. Now you recollect that I have said, that the sensorial tendencies are the more or less lasting effects, which perceptions produce upon the *thinking part of man*. Is here any conjecture or hypothesis? Certainly not. For we do know from internal experience, as certainly as we know any thing from external experience, that perceptions do produce more or less lasting effects upon the thinking part of man. We know that having seen

these effects is a material organ, I advance an opinion or hypoth which is to be supported, and is supported by all the facts and guments in favor of materialism, and I have not the least doubt its correctness. Yet, strictly speaking, it is an hypothesis; fo do not *know* it directly and immediately, either from external or ternal experience. I never saw a brain think, nor does the sim act of thinking, directly and of its very self, inform me what thin

Yet the Scottish professors, as Reid and Stewart, have so bl dered, as to take the simple fact that we think, as good and su cient evidence, nay, positive proof, that man has a soul or mi which is "not liable to be impaired by disease or mutilation of of our organs." But since I *know* a man's *ability* to think is i paired by disease of the brain, particularly of the lower part of i am much inclined to think that if his brain should be crushed, could not think *quite* so well for it.

My hearers, is it not strange that a class of men should have long presumed to tell us how we are made, what sort of things are, and what will become of us when we are dead, when they ha never made man their study. A knowledge of man, as an anim ought to lie as a foundation upon which all systems of morali and all laws relating to the moral conduct of individuals, be found

I think I promised to show what it is to see a ghost. It is si ply to have that action, not only of the sensorium, but of the op nerves, occur without any external cause, that would be excit were the person, whose ghost you see, actually before you.

If such action of the sensorium alone occur, you have but idea of the person, and, as it is a very common thing, you are n alarmed. But it is so seldom that the nervous system gets so o of order that conscient actions of the *nerves* occur without impre sions, and especially when awake, and the senses preoccupied real impressions, that whenever they do occur, most people thi the devil is after them.

However, when external impressions are principally remove the eyes closed, and the senses, as well as the sensorium, a quieted down into a state of inactivity, called sleep—nervous e ergy accumulates; and towards morning the man begins to wa up the inside. First his sensorium begins to act—and though seeing seldom commences in the sensorial extremity of t optic nerves, while impressions are acting upon the organic e tremity, yet in this state, a conscient action commencing in t sensorium extends into the optic nerves—and, the man don't s a ghost to be sure, because we do not call it such, but he se the person himself. He is not alarmed, however, as it is not u common to see a person in a dream.

There is a system of nerves within the body, of which I have not, and shall not attempt to give you any idea. These nerves are unquestionably the seat of many, not very distinct feelings which may be called emotions, or moral passions. Were I to speak physiologically, I should call them sensorial passions, because they are connected with certain sensorial actions or ideas as their cause. These ideas are such as relate to our happiness or misery. It is a law of the animal economy, that when these ideas occur, the internal sensations I speak of, arise just as all other effects follow their causes. When ideas of suffering arise, the sensation, emotion, or feeling, which arises is generally called sorrow. But if the suffering thought of, is to be experienced in a future state, if experienced at all, it is called conscience.

Conscience then, depends on education so far as this,—namely, if a man be so educated as to believe that such and such deeds will be followed by future misery; when he does, or thinks of doing those deeds, the emotion called conscience will arise—it will arise in nervous and exhausted systems much more readily than in others. It is no matter what the deeds are, whether swearing or whistling, murdering, dancing or hoeing potatoes; Nor is his conscience any sort of evidence that he will suffer for doing the deeds. It is only evidence that he believes, fears, or apprehends that he shall. Nor are any of those internal feelings experienced by religionists, the least evidence in favour of the truth of what they believe. They are only evidence that they *do* believe. Only inform a man that he has drawn a prize of $10,000, in such a manner that he will believe, and his feelings will be the same, whether in reality he has or has not.

The subjects glanced at in these lectures, together with many others, are much more fully treated of in "Modern Materialism," a work which I published four years ago. It is of course, not calculated to please religionists; and as it is a little bespattered with theology, it does not altogether suit the free inquirers of the present day. Very little pains have been taken to bring the work before the public; (for I once knew so little of the world as to believe truth would work its own way,) but unless I am somewhat brain-cracked in relation to this work, while I am admitted to be sane in relation to the common affairs of life—it contains many important and original ideas, which will sometime or other attract the attention of some man, who has that knowledge of physiology, and metaphysical speculations, which is necessary

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